

**VINEYARD APPARATUS, SYSTEM, AND METHOD FOR VINEYARD  
MECHANIZATION**

**ABSTRACT OF THE DISCLOSURE**

For more than thirty-two years, extensive research studies involving various concepts of total  
vineyard mechanization have been carried out at the Arkansas Agricultural Experiment Station under  
the direction of Justin R. Morris (22). Tommy Oldridge was one of the first growers in the region  
to commercially test, implement and improve upon the findings of these research studies. These  
studies at the University of Arkansas have involved the evaluation of trellising and training systems  
suitable for total vineyard mechanization, mechanical shoot positioning, mechanical pruning,  
mechanical thinning, mechanical harvesting, and the post-harvest handling and utilization of  
mechanically harvested grapes (2, 22, 23, 24, 25, 26, 27, 35). The success of this approach to  
vineyard mechanization has been the fact that it has concentrated on minimizing or eliminating all  
limiting factors impacting the system while maintaining, or in some cases improving, fruit quality.  
Also, the researchers have constantly developed, modified and evaluated new equipment for the  
mechanization of each viticultural operation requiring hand labor. A major effort has been placed  
on accomplishing these objectives without any loss in fruit quality.